



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of :
Katsushi TOKUNAGA et al. : **ATTN: APPLICATION BRANCH**
Serial No. 09/725,752 : Docket No. 2000_1639A
Filed November 30, 2000 :

REAGENT FOR DIAGNOSIS OF CROHN'S DISEASE

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents,
Washington, DC 20231

Sir:

Prior to calculating the filing fee, please amend the above-identified application as follows:

IN THE CLAIMS

Kindly amend the claims as follows:

3. (Amended) The reagent for diagnosing Crohn's disease according to claim 1, which further comprises at least one member selected from the group consisting of (v) a substance having a specific affinity for a cytochrome oxidase subunit I gene and (vi) a substance having a specific affinity for a cytochrome b gene.

4. (Amended) The reagent for diagnosing Crohn's disease according to claim 1, wherein the substance having a specific affinity is an oligonucleotide or polynucleotide probe.

5. (Amended) The reagent for diagnosing Crohn's disease according to claim 1, wherein the substance having a specific affinity is an oligonucleotide or polynucleotide primer pair.

8. (Amended) The reagent for diagnosing Crohn's disease according to claim 6, which further comprises at least one member selected from the group consisting of (v) a substance having a specific affinity for a cytochrome oxidase subunit I and (vi) a substance having a specific affinity for cytochrome b.

9. (Amended) The reagent for diagnosing Crohn's disease according to claim 6, wherein the substance having a specific affinity is an antibody or a fragment thereof.

14. (Amended) The method for diagnosing Crohn's disease according to claim 10, wherein the biological sample is an ileum tissue or colon tissue derived from an animal.

Kindly add the following new claim:

15. The method for diagnosing Crohn's disease according to claim 12, wherein the biological sample is an ileum tissue or colon tissue derived from an animal.

IN THE SEQUENCE LISTING

Please replace the Sequence Listing of record with the attached substitute Sequence Listing.

REMARKS

The foregoing amendments are presented to remove the multiple dependencies of the claims to eliminate the improper multiple dependencies and to reduce the PTO filing fee.

Attached hereto is marked-up version of the changes made to the claims by the current amendment. The attached pages are captioned "Version with markings to show changes made".

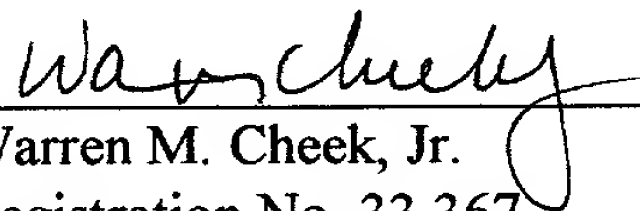
The paper copy of the Sequence Listing is replaced with a substitute Sequence Listing, which has been revised to correct minor informalities. A computer disk is concurrently submitted herewith which contains a computer readable copy of the Sequence Listing. The paper and computer readable copies are identical. No new matter is added.

Favorable action on the merits is solicited.

Respectfully submitted,

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By


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WHAT IS CLAIMED IS

1. A reagent for diagnosing Crohn's disease, which comprises at least one member selected from the group consisting of (i) a substance having a specific affinity for a gene of a type 6 protein phosphatase regulated by interleukin 2, (ii) a substance having a specific affinity for a gene of a Traf 2 and Nck interacting kinase, (iii) a substance having a specific affinity for a gene of a FLICE inhibitory protein, and (iv) a substance having a specific affinity for a gene of a glucocorticoid receptor α .

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2. The reagent for diagnosing Crohn's disease according to claim 1, which comprises (i) a substance having a specific affinity for a gene of a type 6 protein phosphatase regulated by interleukin 2, (ii) a substance having a specific affinity for a gene of a Traf 2 and Nck interacting kinase, (iii) a substance having a specific affinity for a gene of a FLICE inhibitory protein, and (iv) a substance having a specific affinity for a gene of a glucocorticoid receptor α .

3. ^(Amended) The reagent for diagnosing Crohn's disease according to claim 1 ~~or~~ ~~claim 2~~, which further comprises at least one member selected from the group consisting of (v) a substance having a specific affinity for a cytochrome oxidase subunit I gene and (vi) a substance having a specific affinity for a cytochrome b gene.

4. ^(Amended) The reagent for diagnosing Crohn's disease according to ~~any of~~ ~~claim 1 to claim 3~~, wherein the substance having a specific affinity is an oligonucleotide or polynucleotide probe.

5. ^(Amended) The reagent for diagnosing Crohn's disease according to ~~any of~~ ~~claim 1 to claim 3~~, wherein the substance having a specific affinity is an oligonucleotide or polynucleotide primer pair.

6. A reagent for diagnosing Crohn's disease, which comprises at least one member selected from the group consisting of (i) a substance having a specific affinity for type 6 protein phosphatase regulated by interleukin 2, (ii) a substance having a specific affinity for Traf 2 and Nck interacting kinase, (iii) a substance having a specific affinity for FLICE inhibitory protein, and (iv) a substance having a

specific affinity for glucocorticoid receptor α .

7. A reagent for diagnosing Crohn's disease according to claim 6, which comprises (i) a substance having a specific affinity for type 6
5 protein phosphatase regulated by interleukin 2, (ii) a substance having a specific affinity for Traf 2 and Nck interacting kinase, (iii) a substance having a specific affinity for FLICE inhibitory protein, and (iv) a substance having a specific affinity for glucocorticoid receptor α .

10 (Amended)

8. The reagent for diagnosing Crohn's disease according to claim 6 ~~or~~
~~claim 7~~, which further comprises at least one member selected from the group consisting of (v) a substance having a specific affinity for a
cytochrome oxidase subunit I and (vi) a substance having a specific
15 affinity for cytochrome b.

(Amended)

9. The reagent for diagnosing Crohn's disease according to ~~any of~~
claim 6 ~~to claim 8~~, wherein the substance having a specific affinity
is an antibody or a fragment thereof.

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10. A method for diagnosing Crohn's disease, which comprises the steps of

(a) taking a biological sample from an animal that developed or is associated with a risk of developing Crohn's disease, and
25 (b) analyzing the expression of at least one gene selected from the group consisting of a gene of type 6 protein phosphatase regulated by interleukin 2, a gene of a Traf 2 and Nck interacting kinase, a gene of FLICE inhibitory protein and a gene of glucocorticoid receptor α , in the biological sample.

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11. The method for diagnosing Crohn's disease according to claim 10, which further comprises analyzing the expression of at least one gene selected from the group consisting of a gene of cytochrome oxidase subunit I gene and a gene of cytochrome b.

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12. A method for diagnosing Crohn's disease, which comprises the steps of

(a) taking a biological sample from an animal that developed or is

associated with a risk of developing Crohn's disease, and
(b) analyzing the expression of at least one protein selected from the
group consisting of type 6 protein phosphatase regulated by
interleukin 2, Traf 2 and Nck interacting kinase, FLICE inhibitory
5 protein and glucocorticoid receptor α , in the biological sample.

13. The method for diagnosing Crohn's disease according to claim 12,
which further comprises analyzing the expression of at least one
protein selected from the group consisting of cytochrome oxidase
10 subunit I and cytochrome b.

(Amended)
14. The method for diagnosing Crohn's disease according to ~~any of~~
^{Claim 10} ~~claims 10 to 13~~, wherein the biological sample is an ileum tissue or
colon tissue derived from an animal.

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